

Tuesday, 10/3/2006 2:50:03 PM
 User: Kim Johnston

Process Sheet

SPLIT-1

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: BRACKET ASSEMBLY
Job Number	: 28829		
Estimate Number	: 10291		
P.O. Number	: N/A	Part Number	: D3183044
This Issue	: 10/3/2006 S.O. No. : N/A	Drawing Number	: D3183 REV C1
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : MACHINED PARTS	Drawing Revision	: C1
Previous Run	: 26042	Material	: N/A
Written By	: <u>[Signature]</u>	Due Date	: 10/30/2006 Qty: 8 Um: Each
Checked & Approved By	: <u>[Signature] 06 10 03</u>		
Comment	: Est Rev: Pick: A 04.02.18 New issue KJ/DS		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M174B2000X01500	17-4 SS Bar
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Comment: Qty.: 0.4812 f(s)/Unit Total : 2.8873 f(s)

Material: 17-4 SS Bar per AMS 5604/5643

(M17-4-B1.500x02.000)

Identify for D3183-4

Batch: M19478 1.8875 06/10/25

2.0	BAND SAW	BAND SAW
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Comment: BAND SAW

Cut blanks: (1.500" x 2.000") 5.500" long

06/10/25

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3183-4 as per Folio FA322 and Dwg D3183

Identify as D3183-4

2-Deburr

3-Scribe batch number

SD/J.L06/11/03

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

SD/J.L06/11/03

8

8

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3183-044 PAR #: NA Fault Category: Prod / Machined Parts NCR: Yes No DQA: 15 Date: 07.01.30
 QA: N/C Closed: 18 Date: 07.01.30

NCR: <u>28829</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>06/11/03</u>	<u>3</u>	<u>1 part flew out of jig, corners on blanks have too much of a radius on them can't hold properly</u>	<u>JS</u> <u>05/04/2</u>	<u>scrap + replace</u> <u>destroy</u> <u>Place the 2 sides to square them off as necessary.</u>	<u>J.L</u> <u>06/11/03</u>	<u>07.11.03</u>	<u>JS</u> <u>05/04/2</u>	<u>06.11.03</u>

NOTE: Date & initial all entries

Date: Tuesday, 10/3/2006 2:50:03 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 28829

Part Number: D3183044

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

mk 06/11/03

8

6.0

D312121

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3121-21

Bolt

B28704 x10mx

B 29698 x6mx

7.0

D3183045

Bearing Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3183-045 Bearing Ass

B28836 x10

B 30004 x6

B29827 x6mx

8.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3183-043 as per Dwg D3183.

SN / J.L

mk 06-01-25

06.11.01

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06/01/29 (3)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: *5-412*

06/01/29 (3)

06/01/29

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

06/01/30

Job Completion



06-01-30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 28829
Description: Bracket		Part Number: D3183-4
Inspection Dwg: D3183	Rev: C1	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	R.190	/			
R0.063	+/-0.010	R.063	/			
0.182	+/-0.010	.181	/			
0.070	+/-0.010	.074	/			
0.100	+/-0.010	.102	/			
Ø0.201 x 0.100	+/-0.010	Ø.202 x .106	/			
0.182	+/-0.010	.181	/			
5.32	+/-0.030	5.322	/			
5.036	+/-0.010	5.036	/			
2.120	+/-0.010	2.120	/			
1.290	+/-0.010	1.188	/			
0.365	+/-0.010	.365	/			
0.218	+/-0.010	.215	/			
1.030	+/-0.010	1.028	/			
1.90	+/-0.030	1.887	/			
1.012	+/-0.010	1.012	/			
Ø0.201 x 0.100	+/-0.010	Ø.202 x .106	/			
0.182	+/-0.010	.181	/			
0.786	+/-0.010	.792	/			
Ø0.392	+0.002/-0.000	Ø.392	/			
R0.19	+/-0.030	R.19	/			
3.954	+/-0.010	3.955	/			
0.162	+/-0.010	.162	/			
R0.19	+/-0.030	R.19	/			
R0.25	+/-0.030	R.25	/			
4.26	+/-0.030	4.262	/			
2.800	+/-0.030	.2810	/			
Calculated dimension						
0.162	+/-0.010	.167	/			
0.615	+/-0.010	.615	/			
0.435	+/-0.010	.435	/			
0.200	+/-0.010	.201	/			
0.381	+/-0.010	.380	/			
0.032	+/-0.010	.032	/			

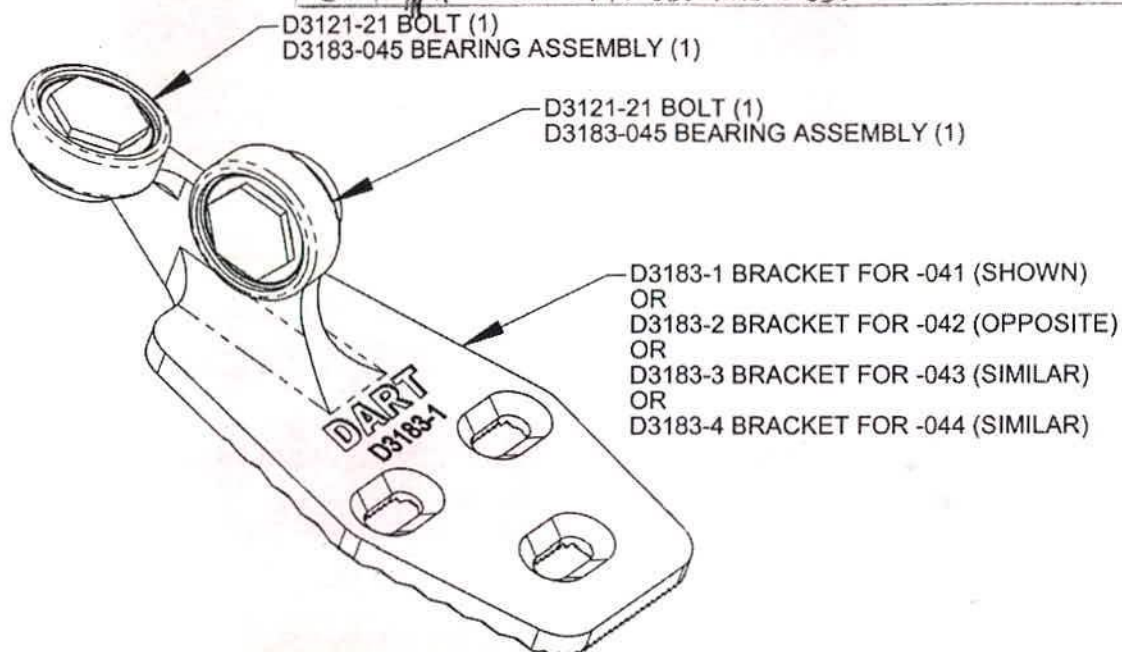
Measured by: SD	Audited by: J.F.	Prototype Approval:	N/A
Date: 06.11.01	Date: 06/11/01	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-044	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	04.06.15	Dimension 2.800 was 2.080; removed 1.155, 0.36 dimensions	KJ/JLM	
D	06.03.09	Dwg Rev update	KJ/JLM	

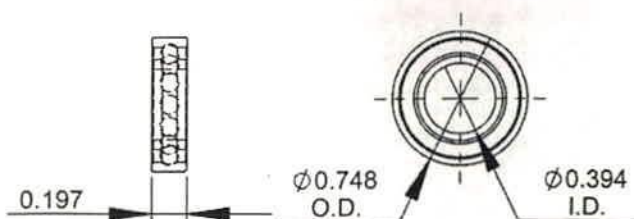
DART

DESIGN #	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY	SCALE 1:1	
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
CI	04.11.09	0.830 WAS 0.850	

RELEASED
04.03.01



D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



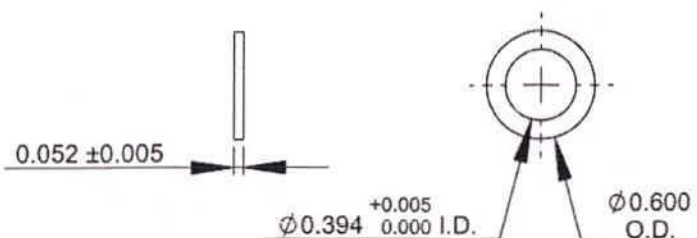
D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES

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D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R)
ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

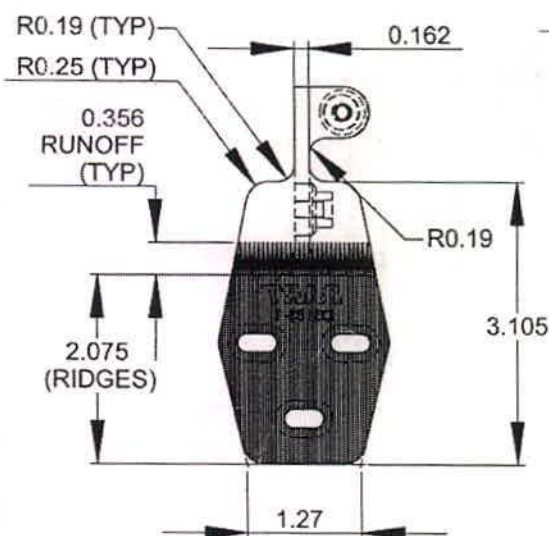
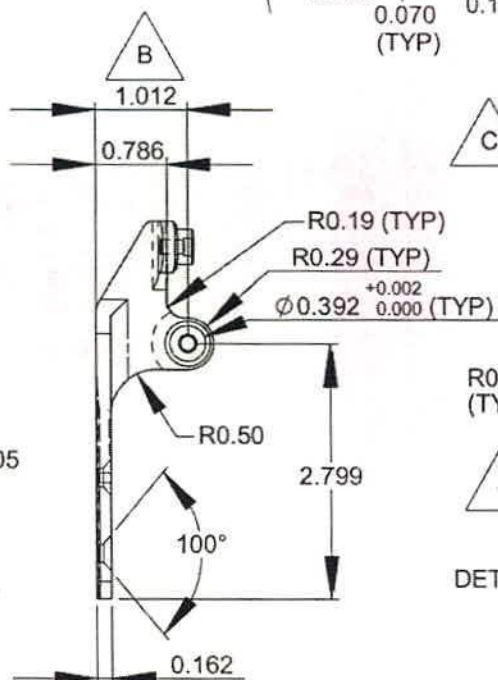
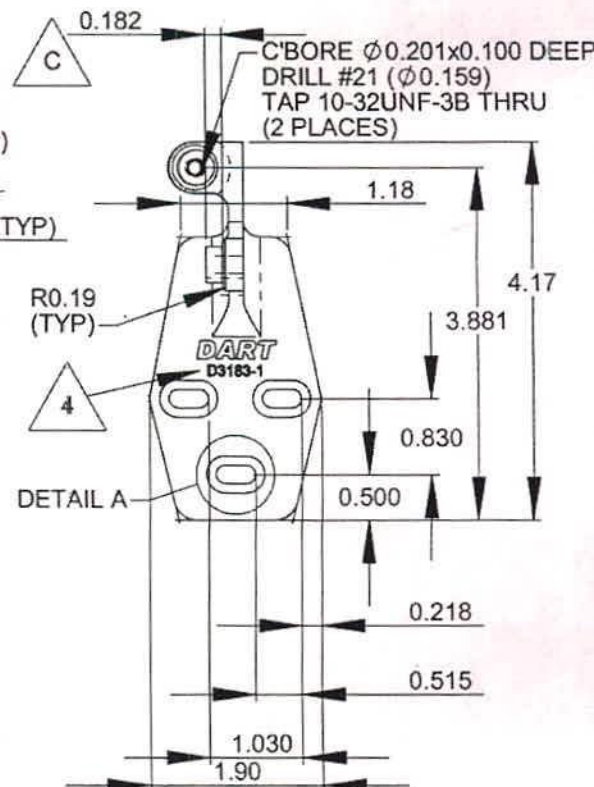
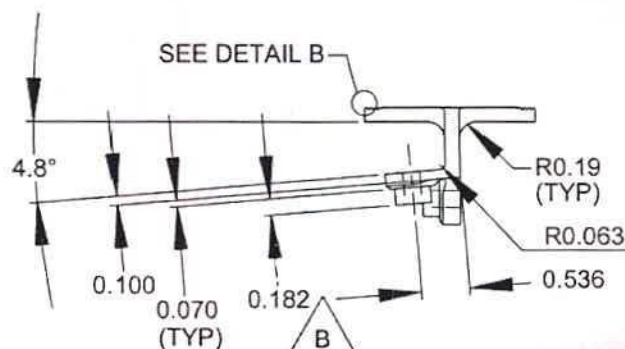


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CHECKED	APPROVED	DRAWING NO. D3183	REV. C
DATE 04.02.17	TITLE BRACKET ASSEMBLY	SHEET 2 OF 4	SCALE 1:2

RELEASED
04-03-01

**D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE**

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

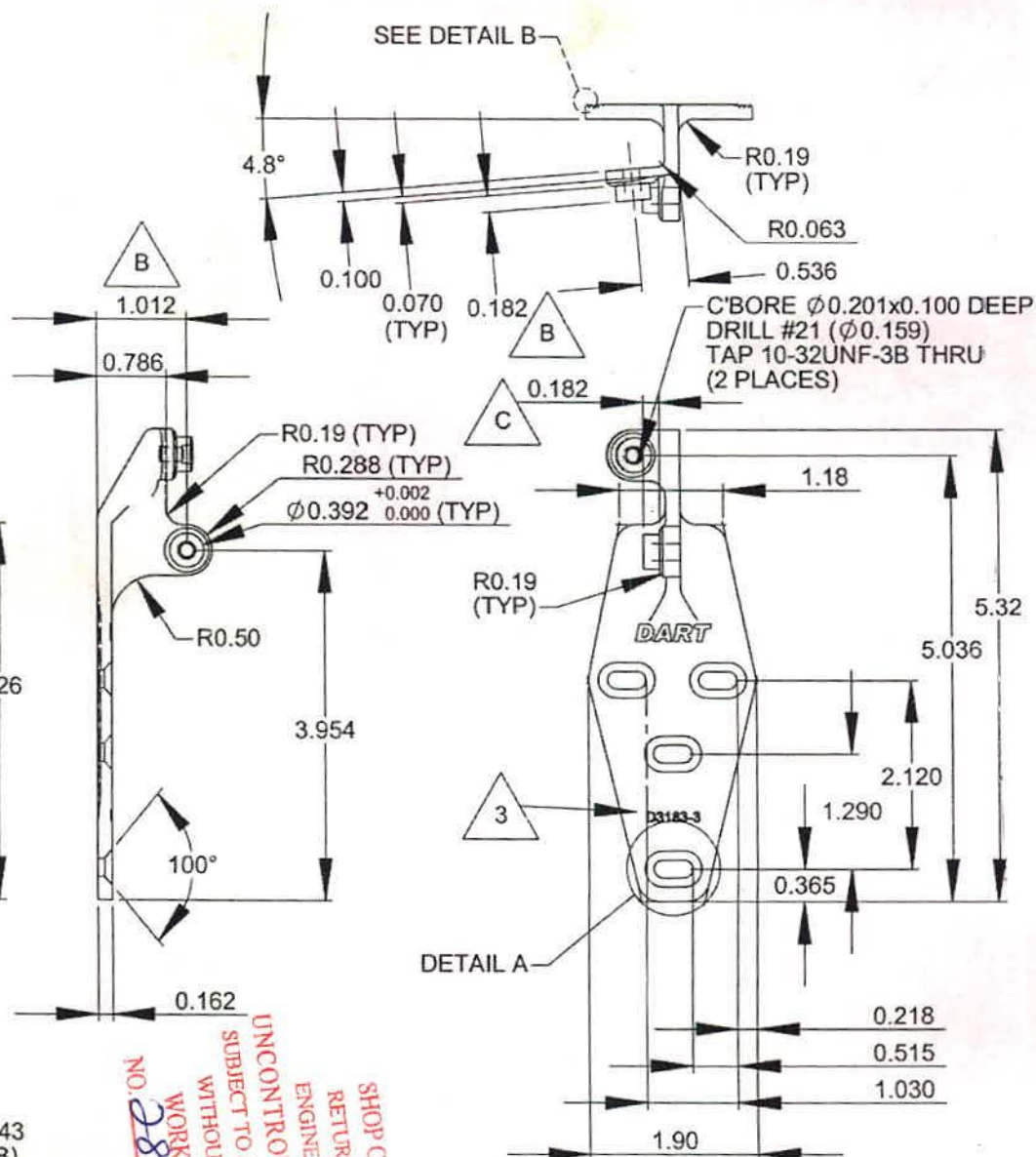
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DATE 04.02.17	DRAWING NO. D3183	REV. C
	TITLE BRACKET ASSEMBLY	SHEET 3 OF 4
		SCALE 1:2



D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

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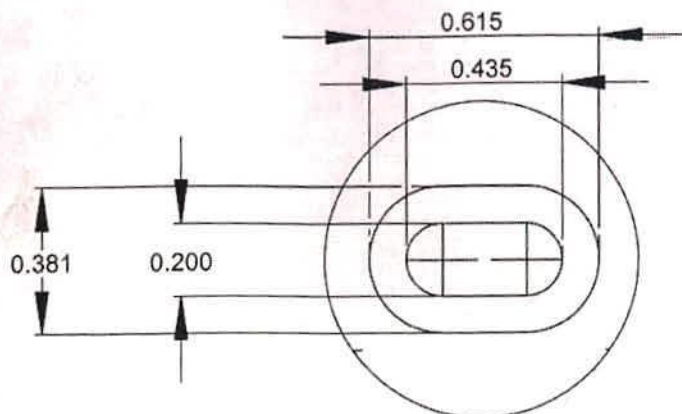
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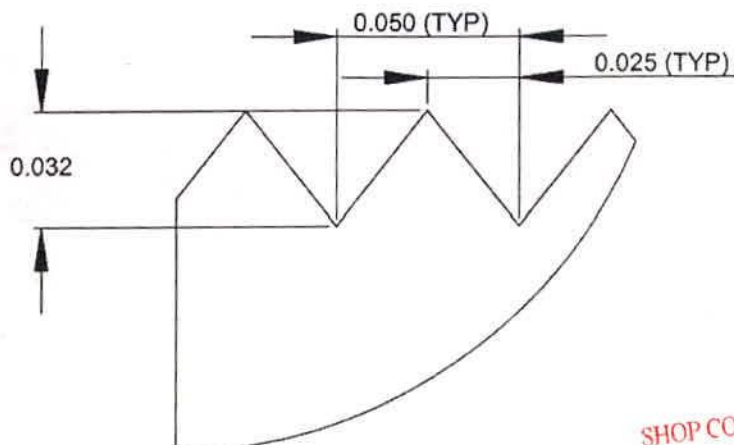


DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY	SCALE 1:1	

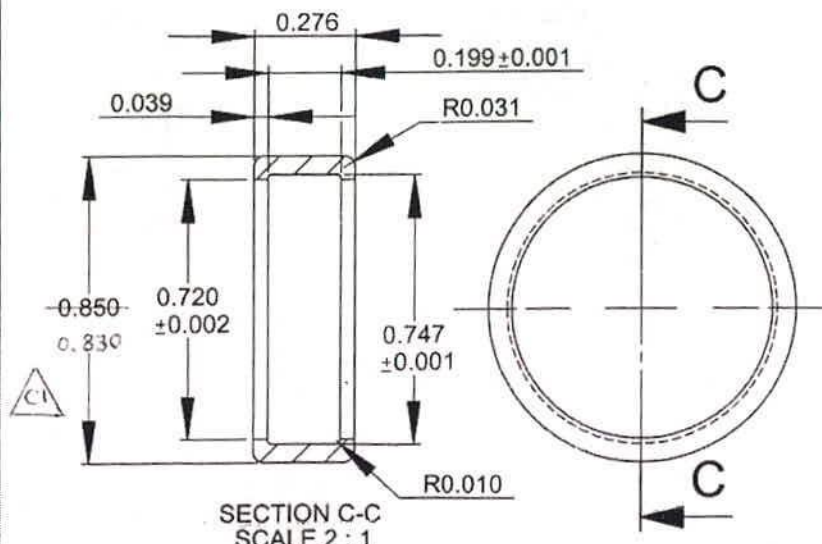


DETAIL A (2 : 1)

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04.03.01 *[Signature]*



DETAIL B (20 : 1)



SECTION C-C
SCALE 2 : 1

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D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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